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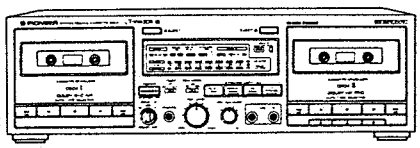
Service Manual



* The above illustration shows U.S. model of CT-W630R.

ORDER NO.
ARP1959

STEREO DOUBLE CASSETTE DECK

CT-W630R
CT-W530R
CT-W530R-S

CT-W630R, CT-W530R AND CT-W530R-S HAVE FOLLOWING VERSIONS :

Type	Applicable model			Power requirement	Export destination
	CT-W630R	CT-W530R	CT-W530R-S		
KUC	O	O		AC120V only	U.S.A. and Canada
HEM	O	O		AC220V, 240V (switchable)	European continent
HEWM			O	AC220V, 240V (switchable)	European continent
HB	O			AC220V, 240V (switchable)	United Kingdom
HPW	O	O		AC220V, 240V (switchable)	Australia
SD	O	O		AC110V, 120V-127V, 220V, 240V (switchable)	Kingdom of Saudi Arabia and general market
KUCXJ		O		AC120V only	U.S.A. and Canada
HEMXJ		O		AC220V, 240V (switchable)	European continent

- This manual is applicable to the KUC, KUCXJ, HEM, HEMXJ, HB, HEWM, HPW and SD types.
- As to the CT-W630R/HEM, HB, HPW and SD types, refer to pages 41, 42.
- As to the CT-W530R/KUC, KUCXJ, HEM, HEMXJ, HPW, SD and CT-W530R-S /HEWM types, refer to pages 43, 44.
- Ce manuel pour le service comprend les explications de réglage en français.
- Este manual de servicio trata del método ajuste escrito en español.

PIONEER ELECTRONIC CORPORATION 4-1, Meguro 1-Chome, Meguro-ku, Tokyo 153, Japan
PIONEER ELECTRONICS SERVICE INC. P.O. Box 1760, Long Beach, California 90801 U.S.A.
PIONEER ELECTRONICS OF CANADA, INC. 505 Cochrane Drive, Markham, Ontario L3R 8E3 Canada
PIONEER ELECTRONIC [EUROPE] N.V. Keetberglaan 1, 2740 Beveren, Belgium
PIONEER ELECTRONICS AUSTRALIA PTY. LTD. 178-184 Boundary Road, Braeside, Victoria 3195, Australia TEL: [03] 580-9911
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CONTENTS

1. SAFETY INFORMATION 2
2. EXPLODED VIEWS AND PARTS LIST 3
3. SCHEMATIC DIAGRAM 12
4. P.C. BOARDS CONNECTION DIAGRAM 15
5. BLOCK DIAGRAM 23
6. PACKING 25
7. ELECTRICAL PARTS LIST 26
8. ADJUSTMENTS 29
8. RÉGLAGE 33
8. AJUSTE 37
9. FOR CT-W630R/HEM, HB, HPW AND SD TYPES 41
10. FOR CT-W530R/KUC, KUCXJ, HEM, HEMXJ, HPW, SD AND CT-W530R-S/HEWM TYPES 43
11. SPECIFICATIONS 45
12. PANEL FACILITIES 46

This service manual is intended for qualified service technicians; it is not meant for the casual do-it-yourselfer. Qualified technicians have the necessary test equipment and tools, and have been trained to properly and safely repair complex products such as those covered by this manual.
Improperly performed repairs can adversely affect the safety and reliability of the product and may void the warranty. If you are not qualified to perform the repair of this product properly and safely, you should not risk trying to do so and refer the repair to a qualified service technician.

WARNING
Lead in solder used in this product is listed by the California Health and Welfare agency as a known reproductive toxicant which may cause birth defects or other reproductive harm (California Health & Safety Code, Section 25249.5).
When servicing or handling circuit boards and other components which contain lead in in solder, avoid unprotected skin contact with the solder. Also, when soldering do not inhale any smoke or fumes produced.

1. SAFETY INFORMATION

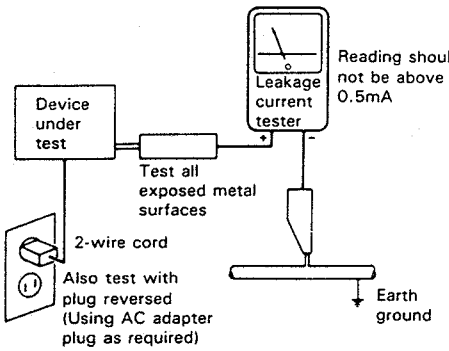
(FOR USA MODEL ONLY)

1. SAFETY PRECAUTIONS

The following check should be performed for the continued protection of the customer and service technician.

LEAKAGE CURRENT CHECK

Measure leakage current to a known earth ground (water pipe, conduit, etc.) by connecting a leakage current tester such as Simpson Model 229-2 or equivalent between the earth ground and all exposed metal parts of the appliance (input/output terminals, screwheads, metal overlays, control shaft, etc.). Plug the AC line cord of the appliance directly into a 120V AC 60Hz outlet and turn the AC power switch on. Any current measured must not exceed 0.5mA.


Reading should not be above 0.5mA
Leakage current tester
Device under test
Test all exposed metal surfaces
2-wire cord
Also test with plug reversed (Using AC adapter plug as required)
Earth ground

AC Leakage Test

ANY MEASUREMENTS NOT WITHIN THE LIMITS OUTLINED ABOVE ARE INDICATIVE OF A POTENTIAL SHOCK HAZARD AND MUST BE CORRECTED BEFORE RETURNING THE APPLIANCE TO THE CUSTOMER.

2. PRODUCT SAFETY NOTICE

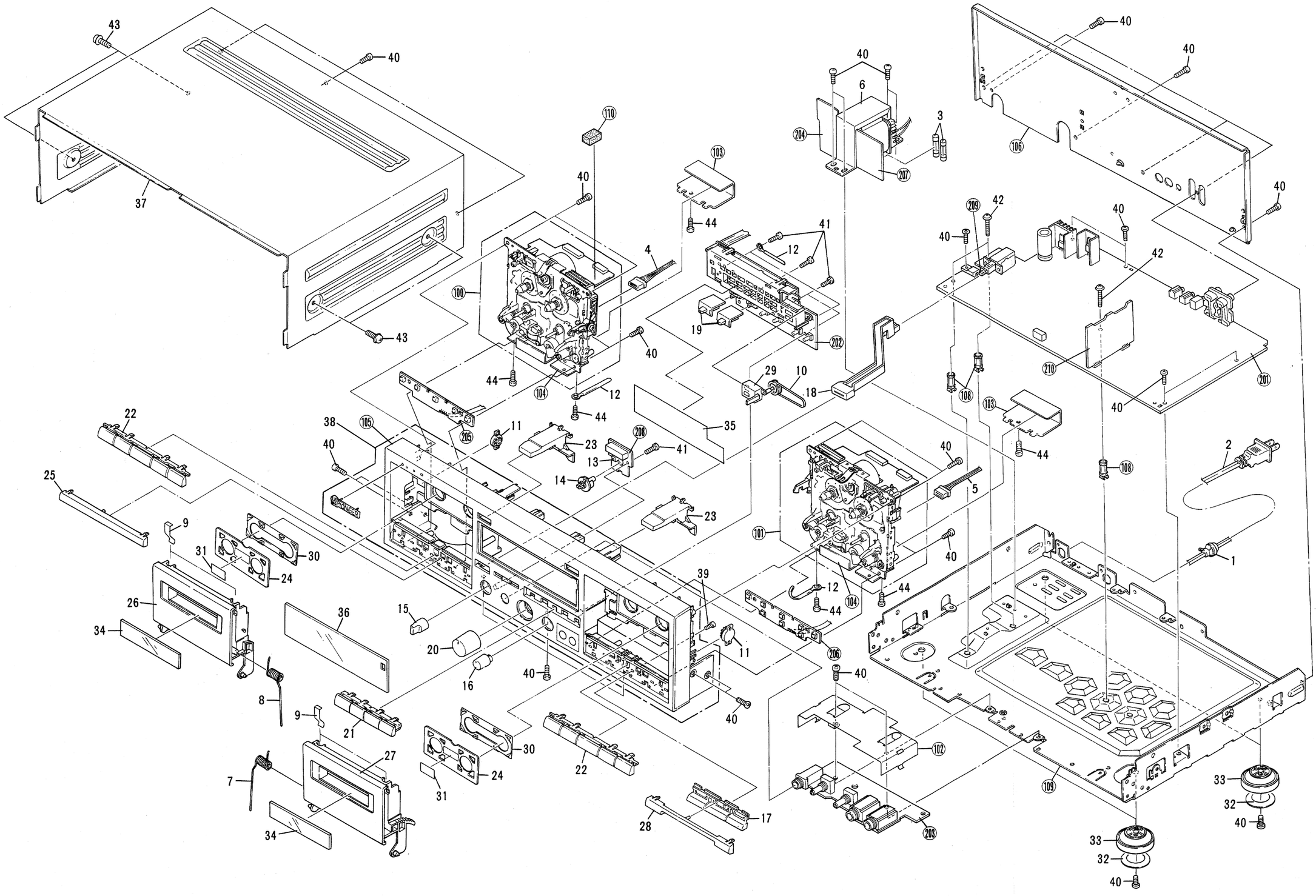
Many electrical and mechanical parts in the appliance have special safety related characteristics. These are often not evident from visual inspection nor the protection afforded by them necessarily can be obtained by using replacement components rated for voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in this Service Manual.

Electrical components having such features are identified by marking with a ⚠ on the schematics and on the parts list in this Service Manual.
The use of a substitute replacement component which dose not have the same safety characteristics as the PIONEER recommended replacement one, shown in the parts list in this Service Manual, may create shock, fire, or other hazards.

Product Safety is continuously under review and new instructions are issued from time to time. For the latest information, always consult the current PIONEER Service Manual. A subscription to, or additional copies of, PIONEER Service Manual may be obtained at a nominal charge from PIONEER.

2. EXPLODED VIEWS AND PARTS LIST

2.1 EXTERIOR



NOTES :
- Parts without part number cannot be supplied.
- The ⚠ mark found on some component parts indicates the impotance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.
- Parts marked by "⊙" are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.

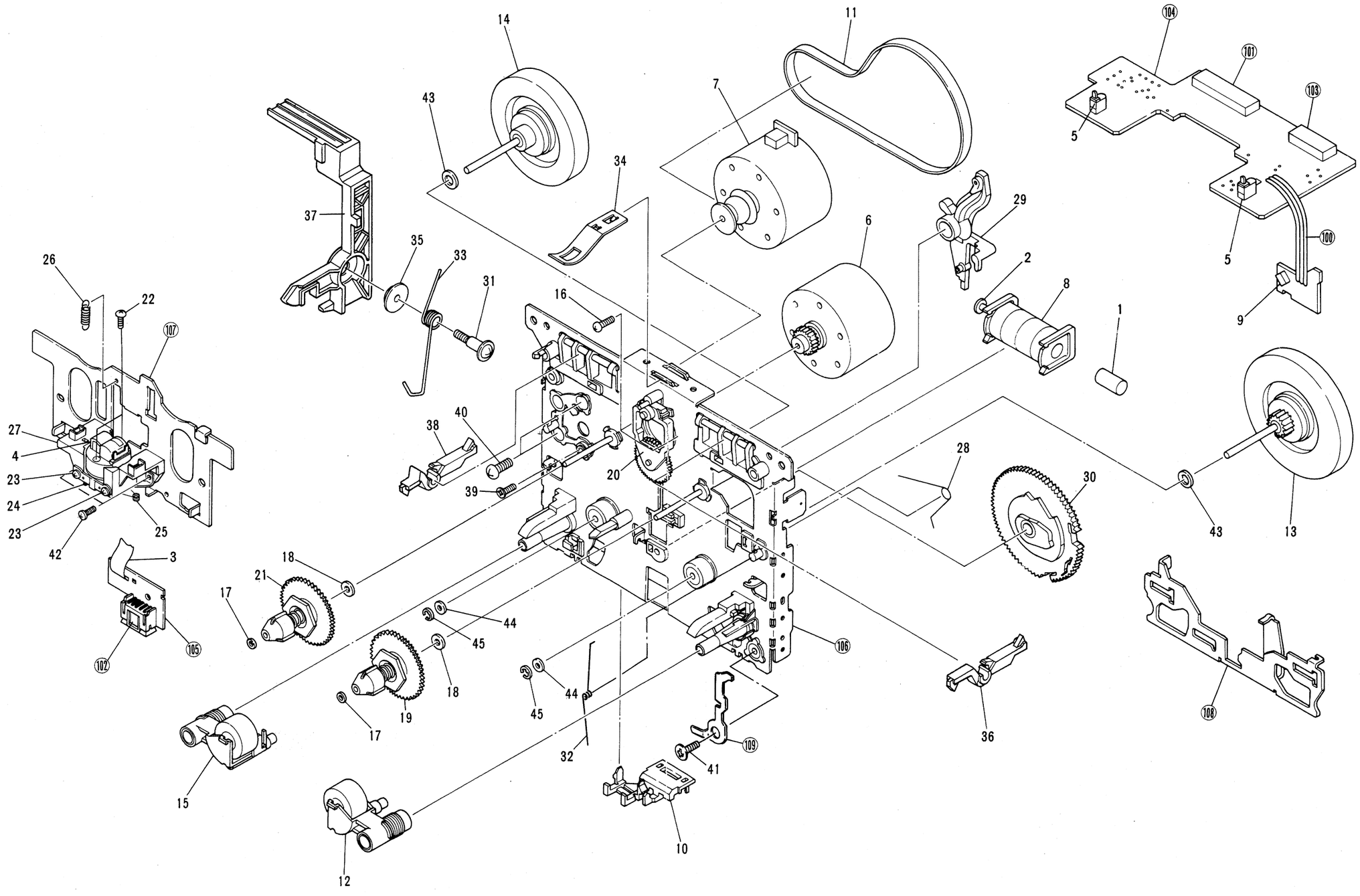
Parts List of Exterior

Mark	No.	Part No.	Description
⚠	1	CM−22	Strain relief
⚠	2	RDG1010	AC power cord
⚠	3	REK1001	FU1801, FU1802 Fuse (1.5A)
⚠	4	RKP1322	Connector assembly 3P
⚠	5	RKP1323	Connector assembly 5P
⚠	6	RTT1116	Power transformer
	7	RBH1254	Door spring (L)
	8	RBH1255	Door spring (R)
	9	RBK1004	Half pressure spring
	10	REB1046	Counter belt
	11	REC1005	Damper assembly
	12	RNH−184	Cord clamper
	13	RNK1522	SW cap
	14	RNK1523	Rotary SW shaft
	15	RAC1414	Knob (B)
	16	RAC1421	VR knob (B)
	17	RAC1424	Operation knob (B)
	18	RAC1427	Power knob
	19	RAC1428	Slide knob
	20	RAC1430	VR knob (A)
	21	RAC1475	Operation knob (C)
	22	RAC1479	Operation knob (A)
	23	RAC1480	Eject knob
	24	RAH1483	Stabilizer panel
	25	RAH1608	REC mold (L)
	26	RAH1609	Door pocket (L)
	27	RAH1610	Door pocket (R)
	28	RAH1611	REC mold
	29	RAW1022	Counter
	30	REB1085	Stabilizer (B)
	31	REE−113	Remain display paper
	32	VEC1061	Stopper
	33	VNK1095	Insulator
	34	RAH1605	Door lens
	35	RAH1606	Meter panel
	36	RAH1607	Meter lens
	37	RXX1079	Bonnet
	38	RXX1259	Front panel assembly
	39	BBZ20P080FMC	Screw
	40	BBZ30P080FMC	Screw
	41	BBZ30P100FZK	Screw
	42	IBZ30P150FCU	Screw
	43	FBT40P080FZK	Screw
	44	VCZ26P060FMC	Screw
	100		Mechanism unit
	101		Mechanism unit
	102		Shield case
	103		Mechanism shield plate
	104		Mechanism bracket
	105		Front panel
	106		Rear panel
	107		.....
	108		PCB spacer
	109		Main chassis (FE)
	110		Spacer
	201		Main unit
	202		Display unit
	203		Volume unit
	204		Transformer 1 unit
	205		Control SW (1) unit
	206		Control SW (2) unit
	207		Transformer 2 unit
	208		Switch unit
	209		Regulator unit
	210		HX unit

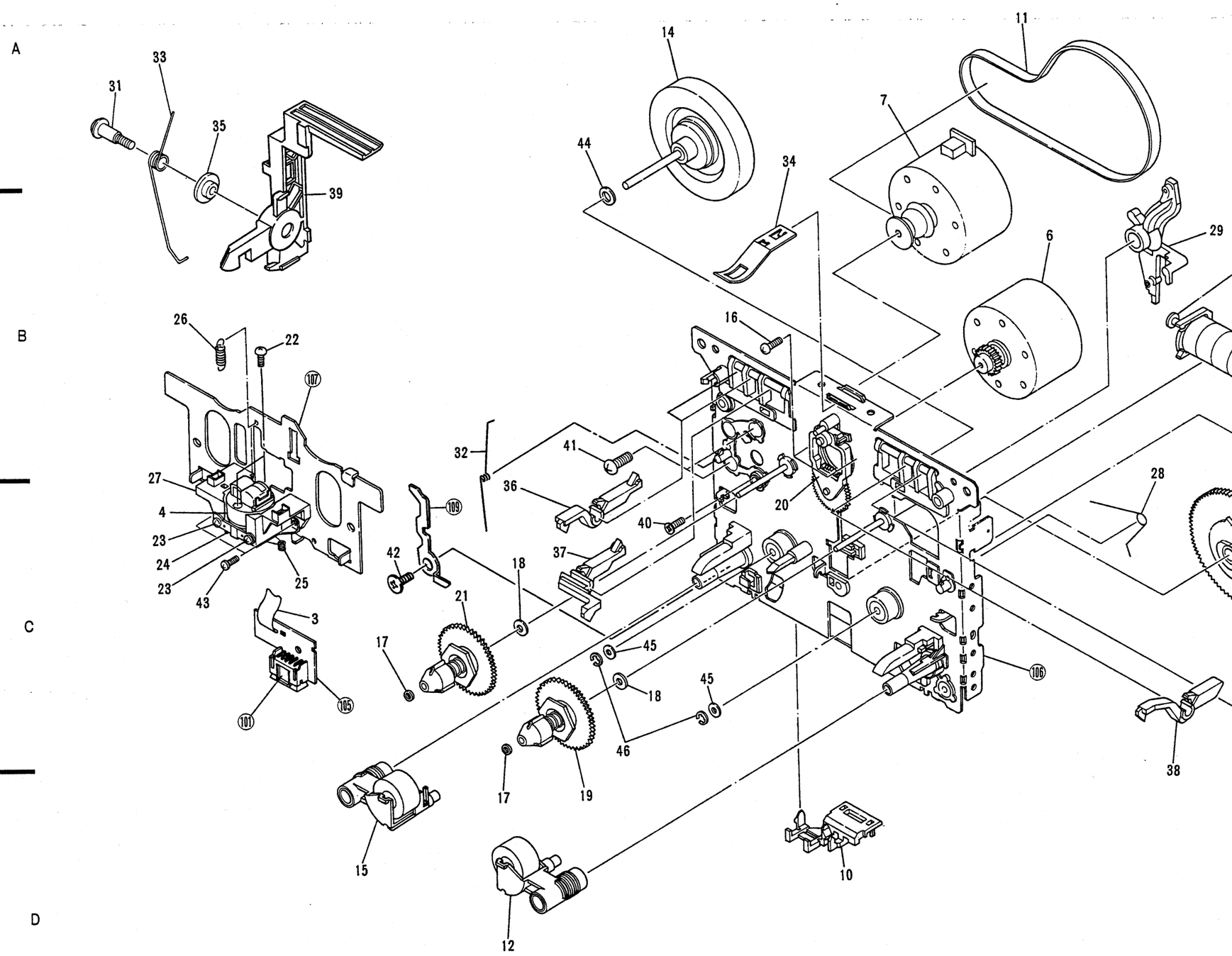
Parts List of Mechanism Unit (Deck 1)

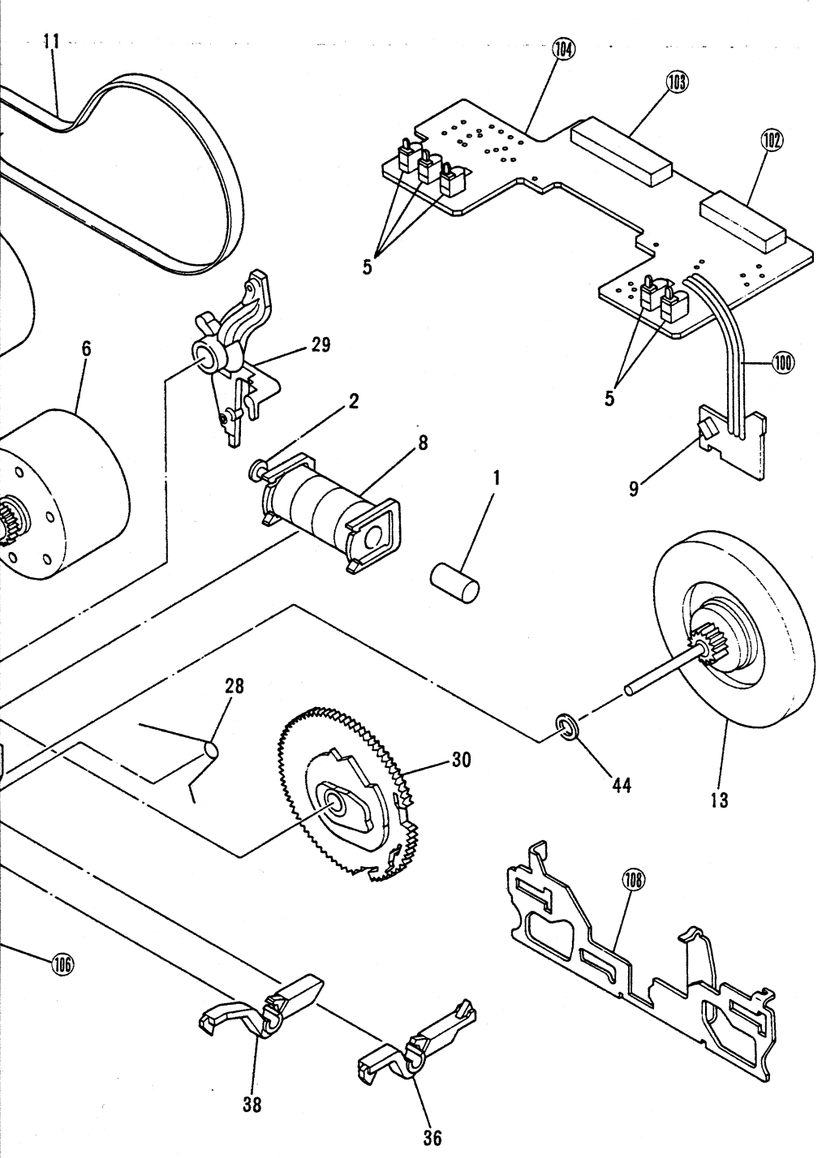
Mark	No.	Part No.	Description
	1	RLA1130	Shaft
	2	RLA1132	Planger
	3	RNP1235	HD FPC (PB)
	4	RPB1031	PB head
	5	RSG1018	Push switch
	6	RXM1029	Motor assembly
	7	RXM1030	Motor assembly (Main)
	8	RXP1010	Solenoid
	9	SPI33534FG	Photo transistor
	10	RNK1530	Wire holder
	11	REB1112	Main belt
	12	RXA1183	Pinch roller assembly
	13	RXA1294	Flywheel assembly
	14	RXA1295	Flywheel assembly
	15	RXA1296	Pinch roller assembly (L)
	16	RBA1076	Screw
	17	RBF-057	Washer
	18	RBF1038	Washer
	19	RXA1184	TU reel assembly
	20	RXA1248	Idler assembly
	21	RXC-040	TU reel assembly
	22	PMZ14P050FNI	Screw
	23	RBA1080	Azimuth screw
	24	RBK1029	Azimuth spring
	25	RBL-085	Rotation spring
	26	RBL1003	Head base spring
	27	RXA1293	Head housing assembly
	28	RBH1239	Slide spring
	29	RNK1525	Play arm
	30	RNK1526	Cam gear
	31	RBA1078	Screw
	32	RBH1230	Eject prevention spring (R)
	33	RBH1264	Eject lever spring (R)
	34	RBK1031	Cassette hold spring
	35	RLA1146	Lever collar (B)
	36	RNK1527	REC detection lever
	37	RNK1594	Eject lever (R)
	38	RNK1625	PACK detection lever (R)
	39	PBZ30P080FMC	Screw
	40	PMZ26P050FMC	Screw
	41	RBA1048	Screw
	42	RBA1077	Screw
	43	WA26D045D025	Washer
	44	WA26D047D050	Washer
	45	YE15FUC	Washer
	100		Tripe-conductor jumper wire
	101		Connector (10P)
	102		Connector (3P)
	103		Connector (4P)
	104		P.C. board
	105		Head P.C.B
	106		Chassis assembly
	107		Head base
	108		Slide plate
	109		Eject prevention arm (R)

2.2 MECHANISM UNIT (DECK I)



2.2 MECHANISM UNIT (DECK II)

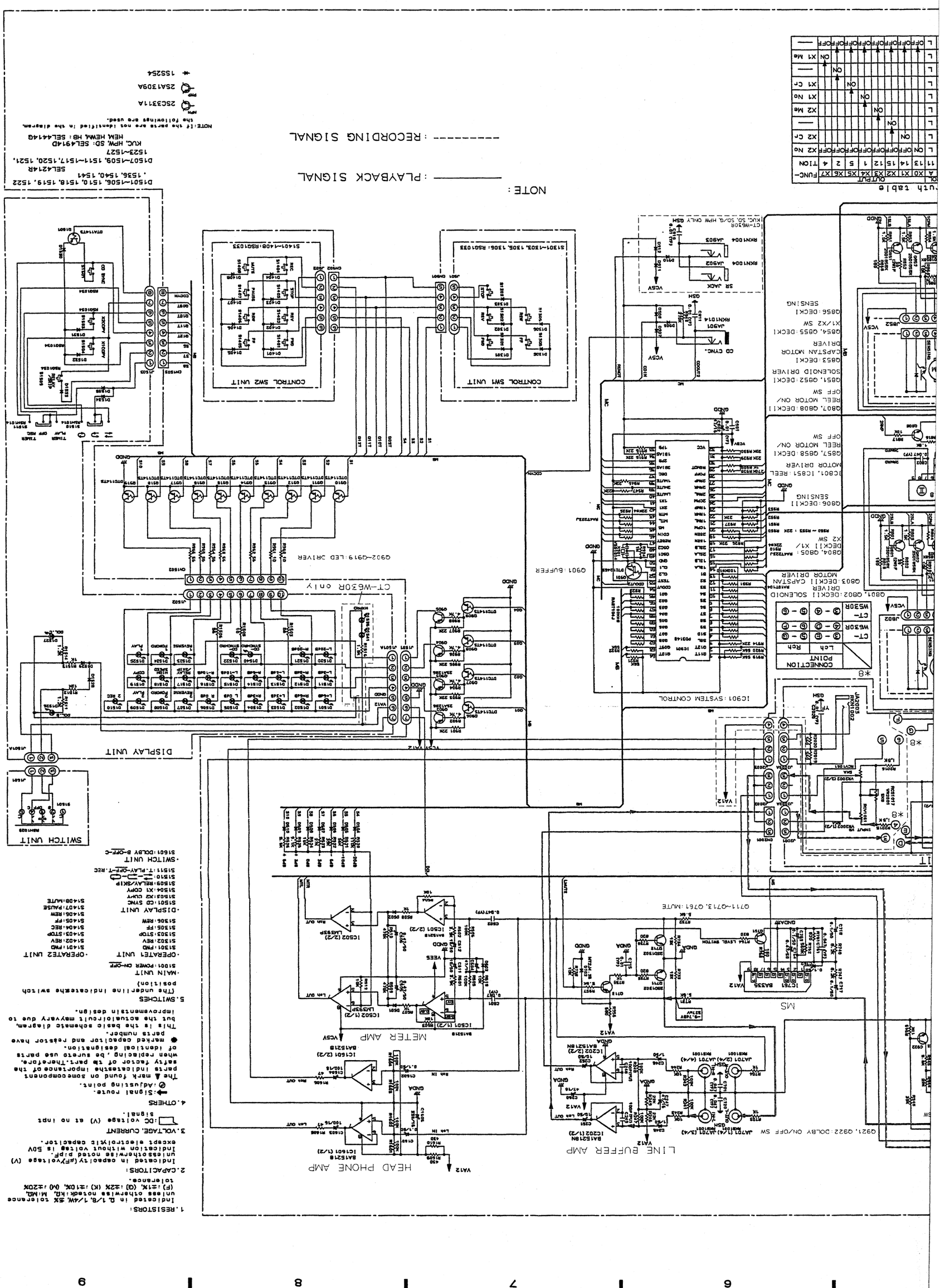




Parts List of Mechanism Unit (Deck II)

Mark	No.	Part No.	Description
	1	RLA1130	Shaft
	2	RLA1132	Planger
	3	RNP1232	HD FPC (R/P)
	4	RPB1030	R/P, E head
	5	RSG1018	Push switch
	6	RXM1029	Motor assembly
	7	RXM1030	Motor assembly (Main)
	8	RXP1010	Solenoid
	9	SPI33534FG	Photo transistor
	10	RNK1530	Wire holder
	11	REB1112	Main belt
	12	RXA1183	Pinch roller assembly
	13	RXA1294	Flywheel assembly
	14	RXA1295	Flywheel assembly
	15	RXA1296	Pinch roller assembly (L)
	16	RBA1076	Screw
	17	RBF−057	Washer
	18	RBF1038	Washer
	19	RXA1184	TU reel assembly
	20	RXA1248	Idler assembly
	21	RXC−040	TU reel assembly
	22	PMZ14P050FNI	Screw
	23	RBA1080	Azimuth screw
	24	RBK1029	Azimuth spring
	25	RBL−085	Rotation spring
	26	RBL1003	Head base spring
	27	RXA1293	Head housing assembly
	28	RBH1239	Slide spring
	29	RNK1525	Play arm
	30	RNK1526	Cam gear
	31	RBA1078	Screw
	32	RBH1234	Eject prevention spring (L)
	33	RBH1262	Eject lever spring (L)
	34	RBK1031	Cassette hold spring
	35	RLA1146	Lever collar (B)
	36	RNK1527	REC detection lever
	37	RNK1529	Metal detection lever (L)
	38	RNK1543	PACK detection lever (P)
	39	RNK1593	Eject lever (L)
	40	PBZ30P080FMC	Screw
	41	PMZ26P050FMC	Screw
	42	RBA1048	Screw
	43	RBA1077	Screw
	44	WA26D045D025	Washer
	45	WA26D047D050	Washer
	46	YE15FUC	Washer
	100		Tripe−conductor jumper wire
	101		Connector (5P)
	102		Connector (7P)
	103		Connector (10P)
	104		P.C. board
	105		Head P.C.B (R/P)
	106		Chassis assembly
	107		Head base
	108		Slide plate
	109		Eject prevention arm (L)

3. SCHEMATIC DIAGRAM


NOTE :
———— : PLAYBACK SIGNAL
– – – – – – – – – : RECORDING SIGNAL
NOTE : the following parts are not identified in the diagram.
2SC3311A
2SA1309A
1SS254
D1507~1509, 1511~1517, 1520, 1521, 1523~1527
KUC, HPW, SD: SEL4914D
HEW, HEWW, HB: SEL4414Q
D1507~1509, 1510, 1518, 1519, 1522, 1536, 1540, 1541
SEL4214R
1. RESISTORS:
Indicated in Ω, 1/8, 1/4W, 5% tolerance unless otherwise noted: kΩ, M: MΩ, (F): ±1%, (G): ±2% (K) :±10%, (M) :±20% tolerance.
2. CAPACITORS:
Indicated in capacitry (μF)voltage (V) Indication without voltage is 50V except electrolytic capacitor.
3. VOLTAGE, CURRENT
: DC voltage (V) at no input signal.
4. OTHERS
: Signal route.
: Adjusting point.
The ▲ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.
● marked capacitor and resistor have parts number.
This is the basic schmatic diagram, but the actual circuit mayvary due to improvements in design.
5. SWITCHES
(The underline indicates the switch position)
· MAIN UNIT
S1001: POWER ON-OFF
· OPERATE1 UNIT
S1301: FWD
S1302: REV
S1303: STOP
S1305: FF
S1306: REW
· OPERATE2 UNIT
S1401: FWD
S1402: REV
S1403: STOP
S1404: REC
S1405: FF
S1406: REW
· DISPLAY UNIT
S1501: CD SYNC
S1502: X2 CUR-F
S1504: X1 CORF
S1509: RELAY/SKIP
S1510: T.PLAY-OFF-T.REC
S1511: T.PLAY-OFF-T.REC
· SWITCH UNIT
S1601: DOLBY B-OFF-C
CONTROL SW1 UNIT
CONTROL SW2 UNIT
DISPLAY UNIT
SWITCH UNIT
CT-W630R only
G902~G919: LED DRIVER
G901: BUFFER
IC901: SYSTEM CONTROL
METER AMP
HEAD PHONE AMP
LINE BUFFER AMP
G921, G922: DOLBY ON/OFF SW
G911~G913, G761: MUTE
MOTOR DRIVER
CAPSTAN MOTOR DRIVER
SOLENOID DRIVER
REEL MOTOR ON/OFF SW
SENSING
X1/X2 SW
SR JACK
CD SYNC.
CONNECTION POINT
Lch
Rch
CT-W530R
CT-W630R
CT-W530R
CT-W630R
CT-W530R
CT-W630R

4. P.C. BOARDS CONNECTION DIAGRAM

- View from component side

TRANSFORMER 1 UNIT

AC POWER CORD

KUC: 120V 60Hz
HEM, HEWM: 220V
HB: 240V
HPW: 240V
50Hz/60Hz

POWER TRANSFORMER

TRANSFORMER 2 UNIT

MAIN UNIT

SD ONLY

VOLTAGE SELECTOR

GRY 240V
RED 220V
ORG 120~ 127V
YEL 110V
0V

POWER TRANSFORMER

AC POWER CORD

110V, 120~127V
220V, 240V
50Hz/60Hz

SD TRANSFORMER 1 UNIT

REGULATOR UNIT

DISPLAY UNIT

SWITCH UNIT

CONTROL SW 1 UNIT

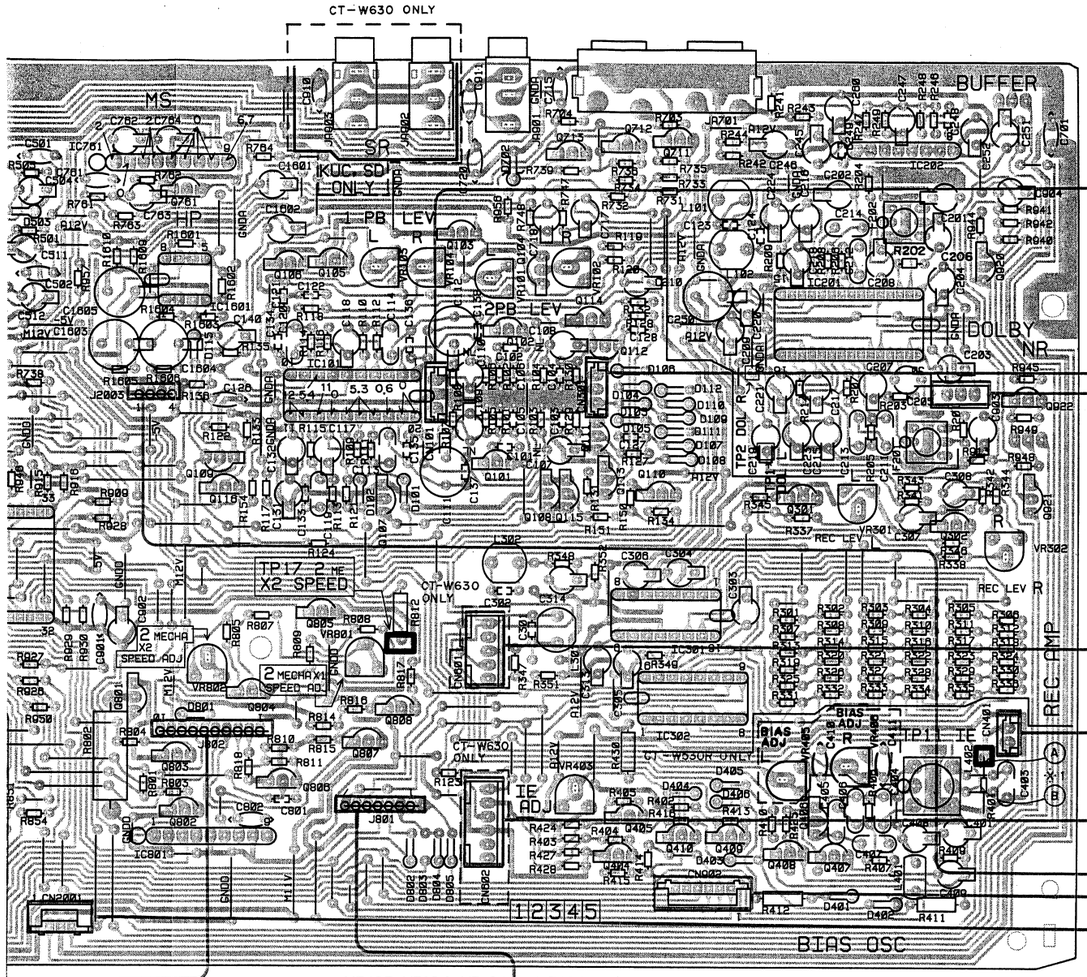
VR851

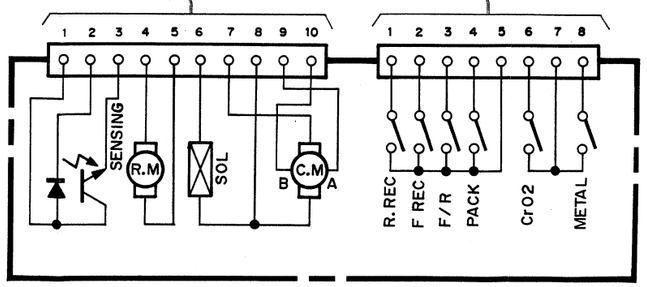
IC1003 IC1002 IC502 IC501
Q1005 Q1006 Q1007 Q905 Q904 Q903 Q902
Q901 Q909 Q908 Q907 Q906
IC1901 Q919 Q917 Q915 IC901 Q912 Q910
Q855 Q918 Q916 Q913 Q911 Q852
Q857 IC851 Q858 Q854 Q914 Q851 Q853 Q856

MECHA 1 UNIT

R.M C.M B A F/R PACK CrO2

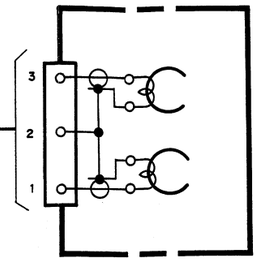
MECHA



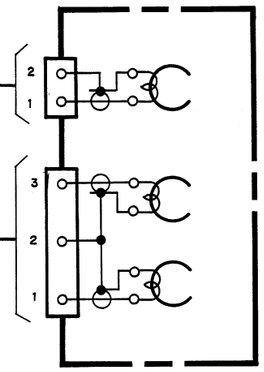


MECHA 2 UNIT

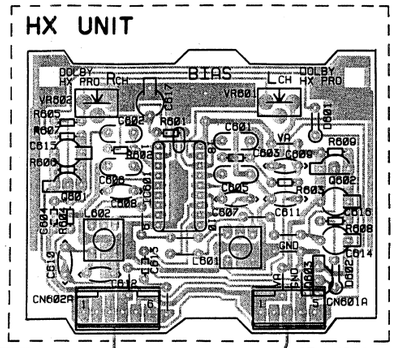
MECHA 1 UNIT



MECHA 2 UNIT



HX UNIT



CT-W630R ONLY

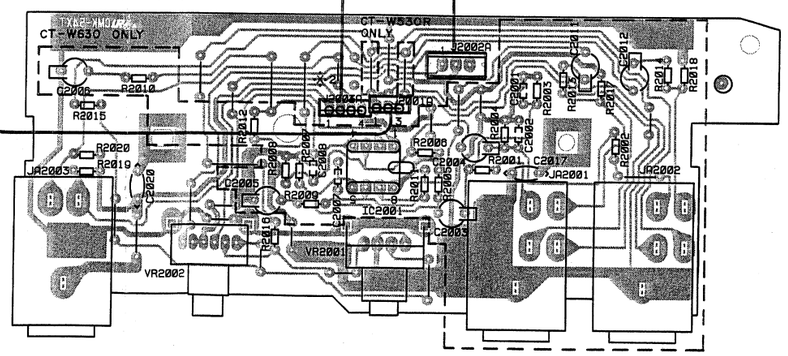
※1

JUMPER	CT-W630R	CT-W530R
Ⓐ	USED	NOT USED
Ⓑ	NOT USED	USED

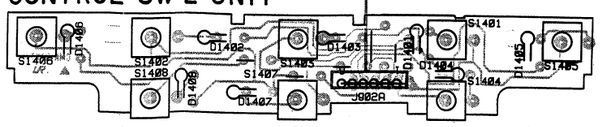
※2

	J2003 J2003A
CT-W630R	4 LEAD
CT-W530R	3 LEAD

VOLUME UNIT

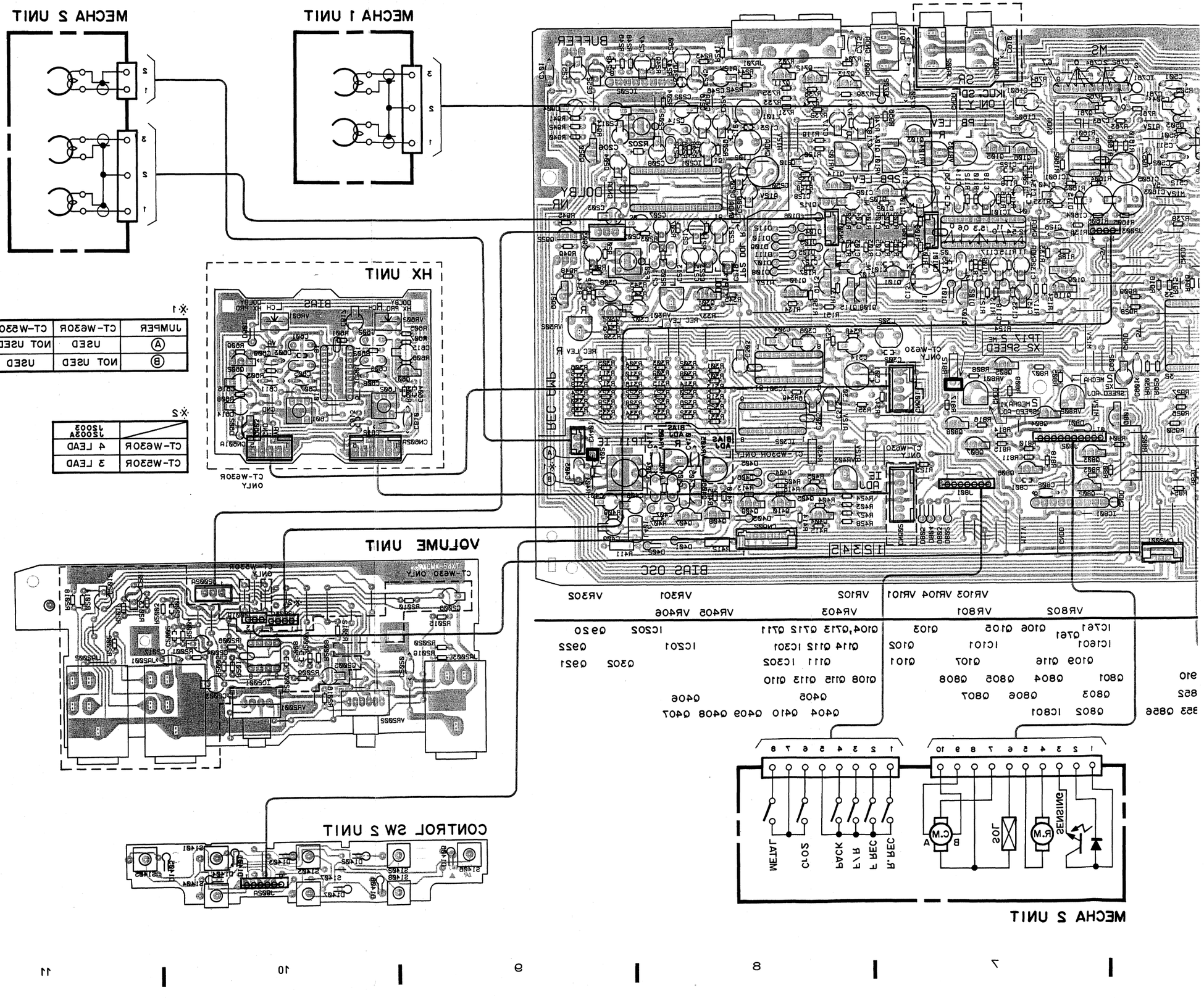


CONTROL SW 2 UNIT



P.C.B. pattern diagram indication	Corresponding part symbol	Part name
		Transistor
		FET
		Diode
		Zenner diode
		LED
		Varactor
		Tact switch
		Inductor
		Coil
		Transformer
		Filter
		Ceramic capacitor
		Mylar capacitor
		Styrol capacitor
		Electrolytic capacitor (Non polarized)
		Electrolytic capacitor (Noiseless)
		Electrolytic capacitor (Polarized)
		Electrolytic capacitor (Polarized)
		Power capacitor
		Semi-fixed resistor
		Resistor array
		Resistor
		Resonator
		Thermistor

1. This P.C.B. connection diagram is viewed from the parts mounted side.
2. The parts which have been mounted on the board can be replaced with those shown with the corresponding wiring symbols listed in the above Table.
3. The capacitor terminal marked with ▭ shows negative terminal.
4. The diode marked with ○ shows cathode side.
5. The transistor terminal marked with ▭ shows emitter.



※1

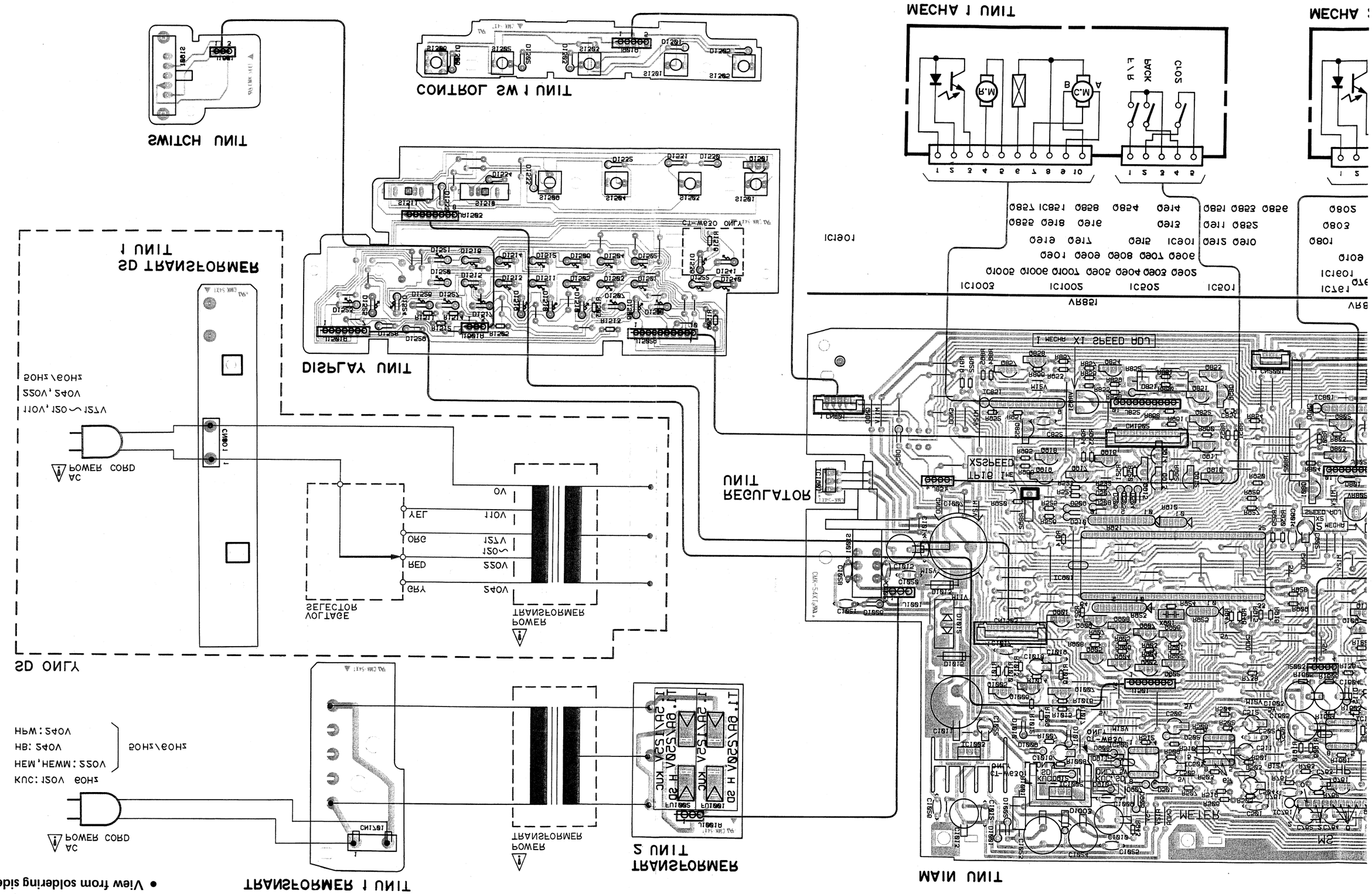
JUMPER	CT-W630R	CT-W530R
Ⓐ	USED	NOT USED
Ⓑ	NOT USED	USED

※2

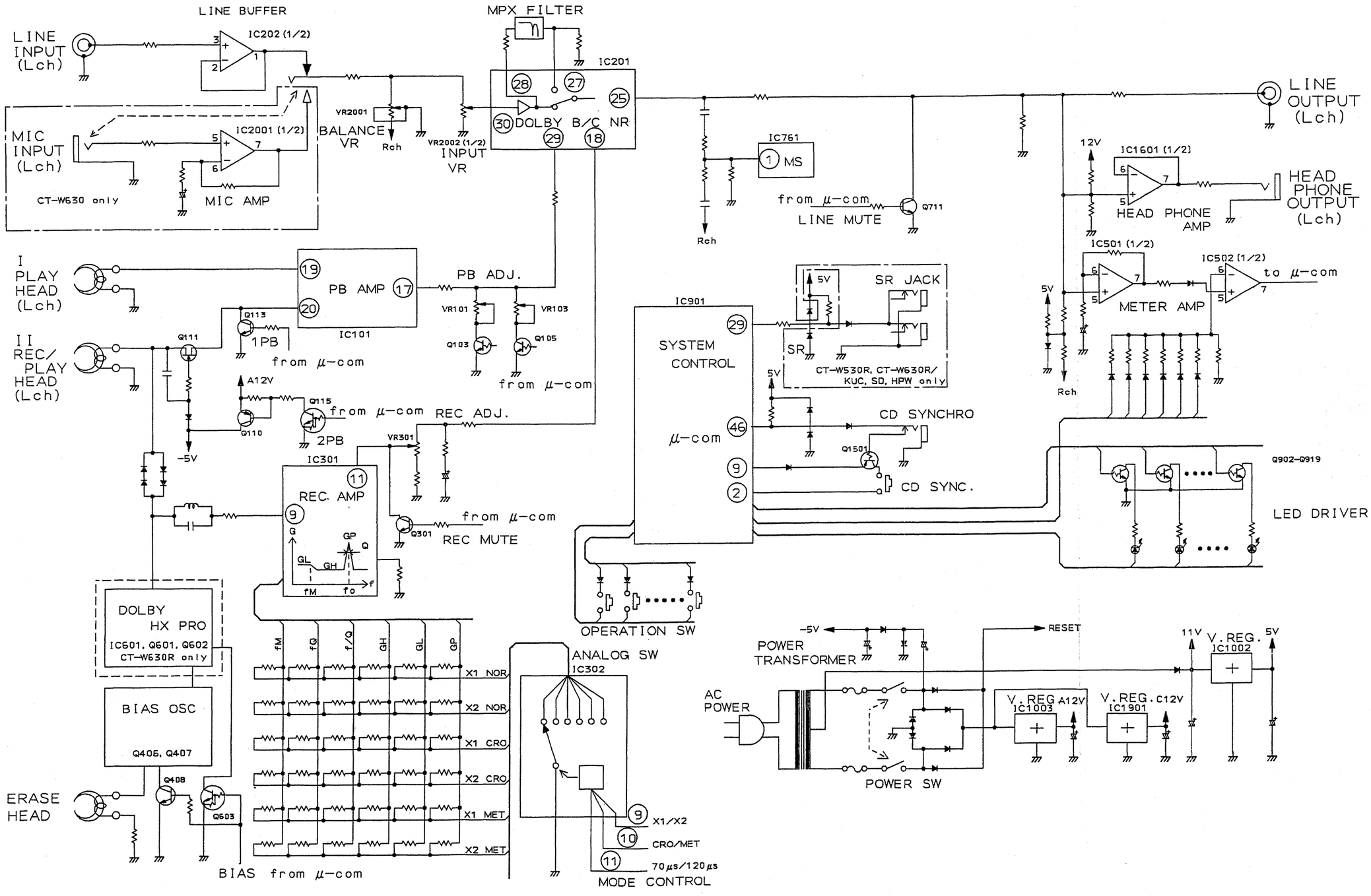
	1S003A
CT-W630R	4 LEAD
CT-W530R	3 LEAD

P.C. BOARDS CONNECTION DIAGRAM

• View from soldering side



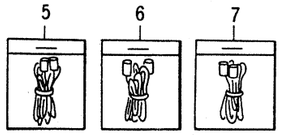
5. BLOCK DIAGRAM

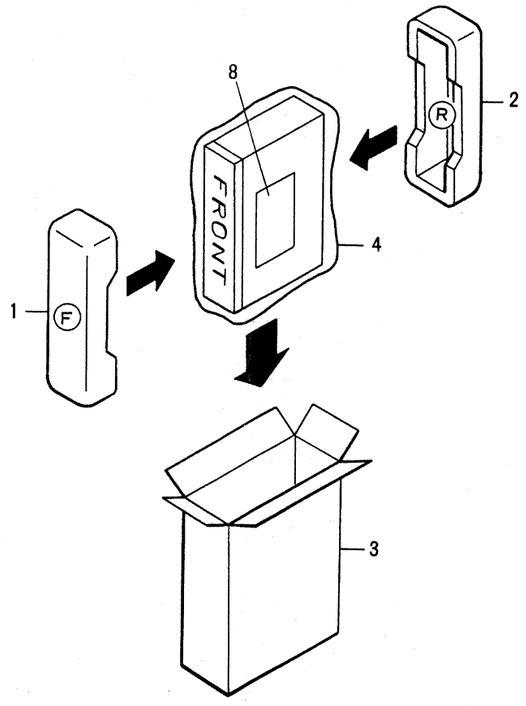


6. PACKING

Parts List

Mark	No.	Part No.	Description
	1	RHA1023	Pad (A)
	2	RHA1024	Pad (B)
	3	RHG1164	Packing case
	4	RHX−034	Sheet
	5	PDE−319	Connection cord (Mini)
	6	RDE1018	Control cord
	7	RDE−010	Connection cord
	8	RRB1058	Operating instructions (English)





7. ELECTRICAL PARTS LIST

NOTES :
- Parts without part number cannot be supplied.
- Parts marked by "⊙" are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.
- The ⚠ mark found on some component parts indicates the impotance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.
- When ordering resistors, first convert resistance values into code form as shown in the following examples.

Ex.1 When there are 2 effective digits (any digit apart from 0), such as 560 ohm and 47k ohm (tolerance is shown by J=5%, and K=10%).

560 Ω 56×10¹ 561 ····· RD1/4PS 5 6 1 J
47k Ω 47×10³ 473 ····· RD1/4PS 4 7 3 J
0.5 Ω 0R5 ····· RN2H 0 R 5 K
1 Ω 010 ····· RS1P 0 1 0 K

Ex.2 When there are 3 effective digits (such as in high precision metal film resistors).

5.62k Ω 562×10¹ 5621 ····· RN1/4SR 5 6 2 1 F

Miscellaneous Parts

P.C. BOARD ASSEMBLIES

Mark	Symbol & Description	Part No.
	Main unit	
	Display unit	
	Volume unit	
	Transformer 1 unit	
	Transformer 2 unit	
	Control SW (1) unit	
	Control SW (2) unit	
	Switch unit	
	Regulator unit	
	HX unit	

OTHERS

Mark	Symbol & Description	Part No.
⚠	Strain relief	CM−22
⚠	AC power cord	RDG1010
⚠	Fuse (1.5A)	REK1001
⚠	Connector assembly 3P	RKP1322
⚠	Connector assembly 5P	RKP1323
⚠	Power transformer	RTT1116
	PB head	RPB1031
	Push switch	RSG1018
	Motor assembly	RXM1029
	Motor assembly (Main)	RXM1030
	Solenoid	RXP1010
	Photo transistor	SPI33534FG
	R/P, E head	RPB1030

Main Unit

SEMICONDUCTORS

Mark	Symbol & Description	Part No.
	IC501, IC1601	BA15218
	IC202	BA15218N
	IC761	BA335
	IC801, IC851	BA6218
	IC101	CXA1115BP
	IC301	CXA1198AP
	IC201	CXA1330S
	IC502	LM393P
	IC302	MC14051B
⚠	IC1002	MC7805CT
⚠	IC1003	MC7812CT
	IC901	PD3148
	Q103−Q106, Q906−Q919	DTC114TS
	Q101, Q102, Q107−Q109, Q115, Q116, Q805, Q855, Q901, Q921	DTC124ES
	Q902, Q903	2SA1286
	Q110, Q713, Q804, Q854, Q904, Q905, Q920, Q1005	2SA1309A
	Q409, Q410	2SB1238X
	Q406−Q408	2SC1815
	Q113, Q114, Q301, Q302, Q404, Q405, Q761, Q806, Q808, Q856, Q858, Q922, Q1006, Q1007	2SC3311A
	Q711, Q712	2SD1302
	Q801−Q803, Q807, Q851−Q853, Q857	2SD1858X
	Q111, Q112	2SK373
⚠	D1013, D1015	GP10GL−5003
	D702	MTZJ4.3B
⚠	D1003	MTZJ5.1B
⚠	D1012	1B2Z1−LC2
⚠	D1006	1SR35−100AVL
	D402, D801, D851	1SS252
⚠	D1001, D1002	1SS252
⚠	D101−D112, D115, D401, D403−D406, D501−D510, D802, D804, D805, D852, D906−D908, D910−D912, D1009−D1011	1SS254

SWITCH

Mark	Symbol & Description	Part No.
⚠	S1001 Power switch	RSA−069

COILS • FILTERS

Mark	Symbol & Description	Part No.
	F201, F202 Dolby filter	ATF-210
	L401 Radial inductor	LFA121K
	L402 Oscillator coil	RTD1048
	L301, L302 Coil (10mH)	RTF1004
	L101, L102 Coil (5.6mH)	RTF1099

CAPACITORS

Mark	Symbol & Description	Part No.
	C127, C128	CCPUSL100J50
	C107-C110	CEANL100M16
	C717, C718, C762, C763, C1601, C1602	CEASR10M50
	C215, C216	CEASR22M50
	C217, C218, C223, C224	CEASR33M50
	C505, C506, C764	CEASR47M50
	C307, C308	CEASR68M50
	C201-C204, C207, C208, C245, C246, C1018	CEAS010M50
	C205, C206, C221, C251, C252, C409, C511, C512, C903, C904, C1016, C1022	CEAS100M50
	C111, C112	CEAS101M10
	C1603, C1604	CEAS101M16
	C313, C314	CEAS2R2M50
	C140	CEAS220M16
	C305, C306	CEAS221M10
	C1010, C1013, C1015, C1023, C1024	CEAS221M16
	C1007	CEAS332M16
	C401, C408	CEAS330M16
	C1605	CEAS331M16
	C1011	CEAS332M25
	C117, C118, C209, C210, C219, C220, C303, C304	CEAS4R7M50
	C131, C132, C247, C250, C260, C504, C902	CEAS470M16
	C211-C214	CFTXA222J50
	C119, C120, C404	CFTXA223J50
	C405-C407	CFTXA332J50
	C113, C114	CFTXA822J50
	C126, C715, C901, C910, C911, C1009, C1012, C1014, C1017, C1019, C1025, C1027, C1028	CKCYF103Z50
	C501, C502, C701, C720, C761, C802, C852, C1020, C1021, C1026	CKCYF473Z50
	C135-C138, C248, C249	CKPUYB101K50
	C103, C104	CKPUYB102K50
	C121, C122, C301, C302	CKPUYB221K50
	C123, C124	CKPUYB391K50
	C101, C102	CKPUYB471K50
	C105, C106	CKPUYB561K50
	C133, C134, C801, C851	CKPUYB681K50
	C403	CQPA682J100

RESISTORS

Mark	Symbol & Description	Part No.
	R931	RA10T104J
	R910, R925	RA4T223J
	R923	RA8T104J
	VR101-VR104, VR301, VR302 Semi-fixed	RCP1046
	VR802	RCP1054
	VR403	RCP1061
⚠	R1001	RS1LF221J
	R802, R852	RS2LMF390J
	VR801, VR851 Semi-fixed (22k)	VRTG6VS223
	R401, R411, R412, R430, R812, R862	RD½LF□□□J
	Other resistors	RD⅛PM□□□J

OTHERS

Mark	Symbol & Description	Part No.
	JA701 Pin jack 4P	RKB1001
	JA902, JA903 Remote control jack	RKN1004
	JA901 Mini jack	RKN1014
	X901 Ceramic resonator	VSS1014

Display Unit

SEMICONDUCTORS

Mark	Symbol & Description	Part No.
	Q1501	DTA114TS
	D1501-D1506, D1510, D1518, D1519, D1522, D1536, D1540, D1541	SEL4214R
	D1507-D1509, D1511-D1517, D1520, D1521, D1523-D1527	SEL4914D-X
	D1528-D1535	1SS254

SWITCHES

Mark	Symbol & Description	Part No.
	S1501, S1503, S1504, S1509 Tact switch	RSG1034
	S1510, S1511 Slide switch	RSH1014

RESISTORS

Mark	Symbol & Description	Part No.
	All resistors	RD⅛PM□□□J

Volume Unit

SEMICONDUCTOR

Mark	Symbol & Description	Part No.
	IC2001	BA15218

CAPACITORS

Mark	Symbol & Description	Part No.
	C2003, C2004, C2011, C2012	CEAS010M50
	C2005, C2006	CEAS100M50
	C2017, C2020	CKCYF103Z50
	C2007, C2008	CKPUYB101K50
	C2001, C2002	CKPUYB681K50

RESISTORS

Mark	Symbol & Description	Part No.
	VR2001 Variable resistor (5kB)	RCS1017
	VR2002 Variable resistor (5kA)	RCV1061
	Other resistors	RD 1/6 PM□□□J

OTHERS

Mark	Symbol & Description	Part No.
	J2002 Head phone jack	RKN1002
	JA2001, JA2002 Mic jack	RKN1003

Transformer 1 Unit

There is no supply part in this unit.

Transformer 2 Unit

There is no supply part in this unit.

Control SW (1) Unit

SEMICONDUCTORS

Mark	Symbol & Description	Part No.
	D1301–D1303, D1305, D1306	1SS254

SWITCHES

Mark	Symbol & Description	Part No.
	S1301–S1303, S1305, S1306 Tact switch	RSG1033

Control SW (2) Unit

SEMICONDUCTORS

Mark	Symbol & Description	Part No.
	D1401–D1408	1SS254

SWITCHES

Mark	Symbol & Description	Part No.
	S1401–S1408 Tact switch	RSG1033

Switch Unit

SWITCH

Mark	Symbol & Description	Part No.
	S1601 Slide switch	RSH1029

Regulator Unit

SEMICONDUCTOR

Mark	Symbol & Description	Part No.
⚠	IC1901	TA7812S

HX Unit

SEMICONDUCTORS

Mark	Symbol & Description	Part No.
	IC601	UPC1297CA
	Q603	DTC124ES
	Q601, Q602	2SA1309A
	D601, D602	1SS254

COILS

Mark	Symbol & Description	Part No.
	L601, L602 Step–up coil	RTD1046

CAPACITORS

Mark	Symbol & Description	Part No.
	C609, C610	CCCSL101K500
	C614	CEASR10M50
	C615, C617	CEAS100M50
	C616	CEAS4R7M50
	C601, C602	CFTXA103J50
	C605, C606	CFTXA223J50
	C607, C608	CGCYX473K25
	C613	CKPUYB101K50
	C603, C604	CKPUYB821K50
	C611, C612 (430P/500)	RCG1005

RESISTORS

Mark	Symbol & Description	Part No.
	VR601, VR602 Semi–fixed (22k)	VRTB6HS223
	Other resistors	RD 1/6 PM□□□J

8. ADJUSTMENTS

8.1 MECHANICAL ADJUSTMENT

1. Tape Speed Adjustment and Check						
No.	Deck	Mode	Test tape	Adjusting points	Specifications/Ratings (playback frequency)	Remarks
1	I	Normal speed PLAY	STD-301 (3 kHz)	After playing back for 1 minute, ground TP16.		
2		Double speed PLAY		check	6000 Hz±600 Hz	
3		Normal speed PLAY		After checking, disconnect TP16 from ground.		
4	II			After playing back for 1 minute, ground TP17.		
5		Double speed PLAY		VR802	Within±10 Hz of step 2 (deck I) check value.	
6		Normal speed PLAY		After checking, disconnect TP17 from ground.		
7				VR801	3000 Hz±5 Hz	
8	I			VR851	Within ±5 Hz of step 7 (deck II) adjustment value.	

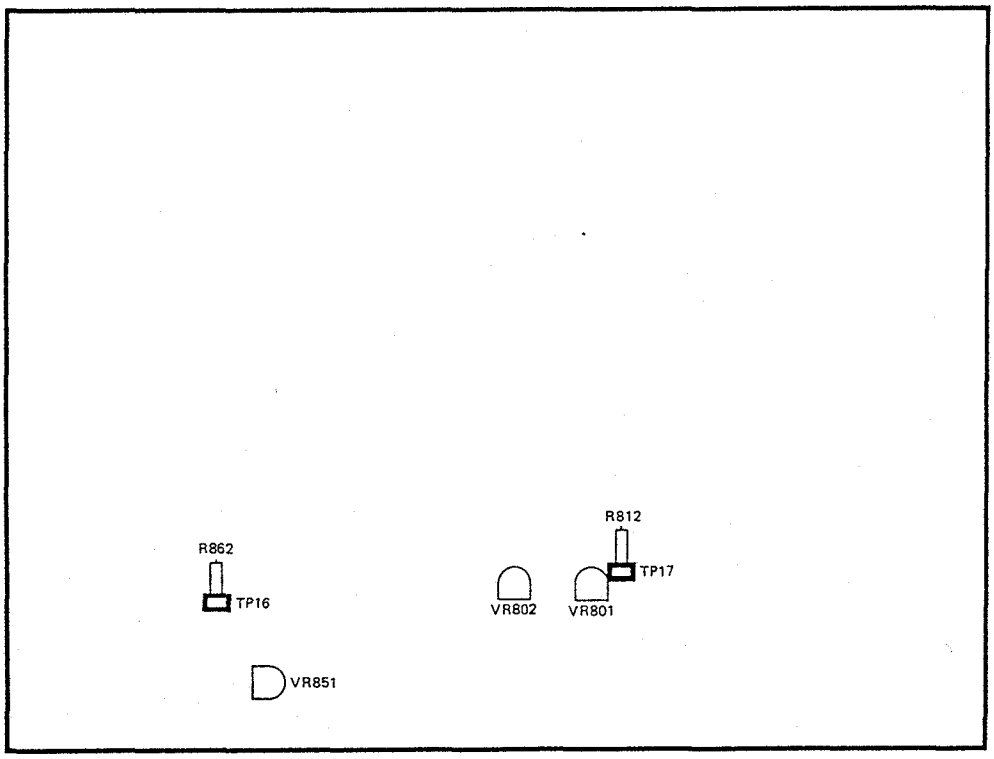


Fig. 8–1 Adjusting Points

8.2 ELECTRICAL ADJUSTMENTS

Adjustment Conditions

1. The mechanical adjustments must be completed first.
2. The head must be cleaned and demagnetized.
3. Turn power on allow the deck to warm up for at least a few minutes before commencing any electrical adjustments.
4. The reference signal is 0dBv=1Vrms.
5. Connect a 50 kΩ (or between 47k to 52 kΩ) load resistance to the OUTPUT terminals.
6. Unless otherwise specified, the switches listed below are left in the positions indicated.
   DOLBY NR : OFF
   TAPE SELECTOR : NORM

Test Tapes

STD-331B : Playback adjustments (See Fig. 8-2)
STD-630 : NORMAL blank tape
STD-620 : CrO_2 blank tape
STD-610 : METAL blank tape

List of Adjustments

Playback sections

1. Head azimuth adjustment.
2. Playback level adjustment.

Recording sections

1. Bias oscillator adjustment.
2. Erase current adjustment.
3. Recording bias adjustment.
4. Recording level adjustment.
5. Level meter check.

NOTE: This unit has an automatic tape selection feature.

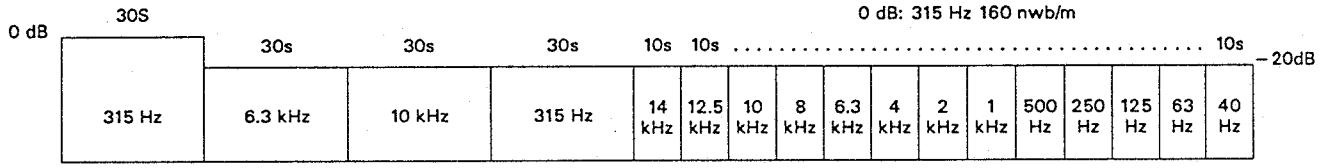


Fig. 8–2 Constants of the test tape STD-331B

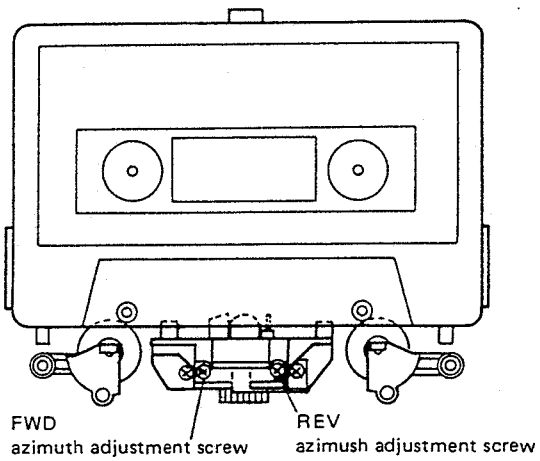


Fig. 8–3 Head azimuth adjustment

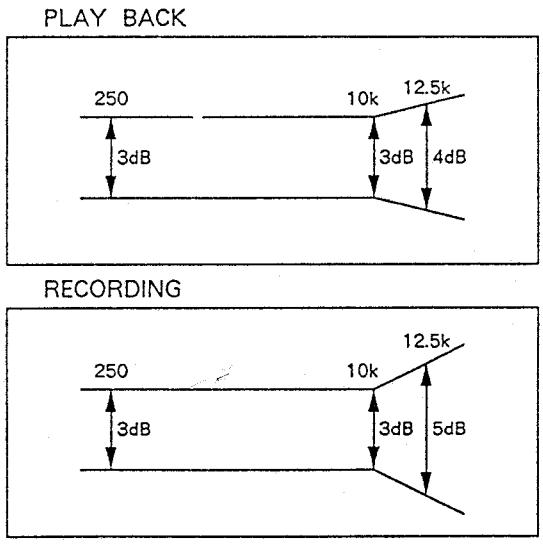


Fig. 8–4 Frequency response zone

PLAYBACK SECTION

1. Head Azimuth Adjustment

• Turn VR103, VR104 (Deck I) or VR101, VR102 (Deck II) to mechanical center positions.

No.	Mode	Input signal & test tape	Adjustment location	Measuring location	Adjustment value	Remarks
1.	PLAY	Play the 10 kHz/−20 dB section of STD-331B test tape.	Head azimuth adjustment screw. (See Fig. 8-3)	LINE OUT	Maximum playback signal level.	
2.	STOP	Lock the screw with screw lock after completing adjustment.				

2. Playback level Adjustment

• This adjustment determines the DOLBY NR level, and must be performed with great care.

No.	Mode	Input signal & test tape	Adjustment location		Measuring location	Adjustment value	Remarks
1.	PLAY	Play the 315 Hz/0 dB section of the STD-331B test tape.	Deck I	VR103 (Lch) VR104 (Rch)	TP. 1 (Lch) TP. 2 (Rch)	−10.7 dBv	
			Deck II	VR101 (Lch) VR102 (Rch)			

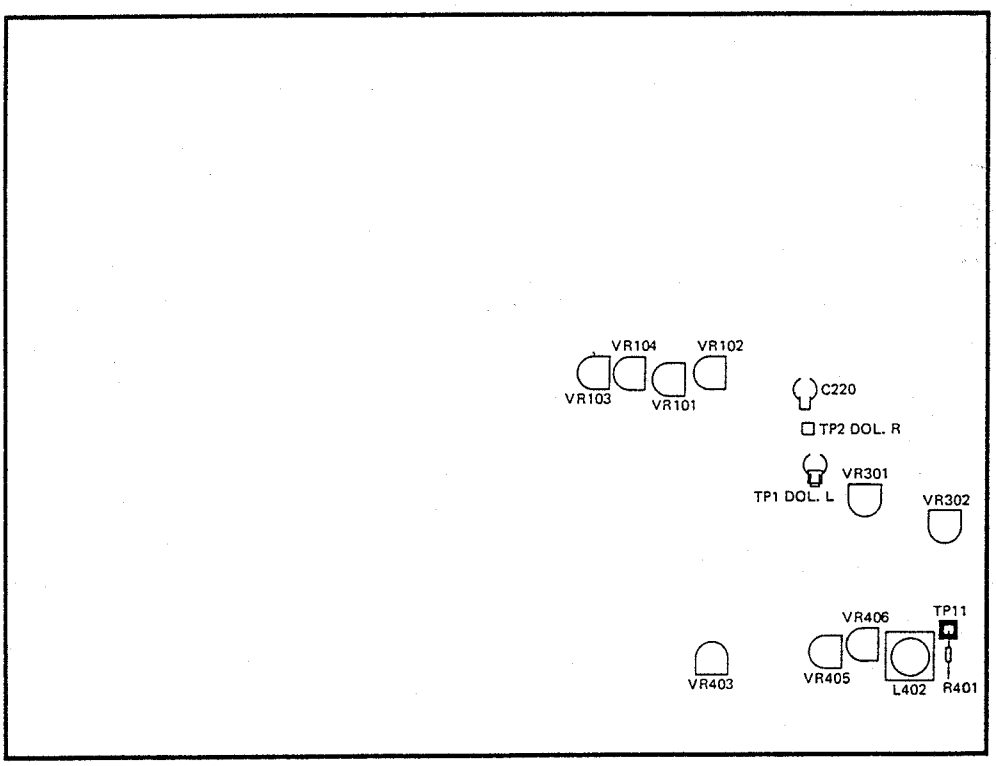


Fig. 8–5 Adjusting points

RECORDING SECTION

1. Bias Oscillator Adjustment

No.	Mode	Input signal & test tape	Adjustment location		Measuring location	Adjustment value	Remarks
1.	REC	Load the STD-610 test tape with no input signal.	Deck II	L 402	TP. 11	105 kHz±0.3 kHz	

2. Erase Current Adjustment

No.	Mode	Input signal & test tape	Adjustment location		Measuring location	Adjustment value	Remarks
1.	REC	Load the STD-610 test tape with no input signal.	Deck II	VR403	TP. 11	165 mV AC	

3. Recording Bias Adjustment

• After the adjustment, caution should be exercised so as not to become under bias by checking the distortion rate.

No.	Mode	Input signal & test tape	Adjustment location		Measuring location	Adjustment value	Remarks
1.	STOP	Set the TAPE SELECTOR switch to the NORM position.					
2.	REC	Record the 315 Hz and 6.3 kHz signals at −20 dBv input level and playback.	CT-W630R	VR601 (Lch) VR602 (Rch)	LINE OUT	Repeatedly record, playback and adjust so that the playback level of 6.3 kHz signal becomes +0.5 dB±0.5 dB when compared with the 315 Hz signal.	
			CT-W530R	VR405 (Lch) VR406 (Rch)			

4. Recording Level Adjustment

No.	Mode	Input signal & test tape	Adjustment location		Measuring location	Adjustment value	Remarks
1.	STOP	Set the TAPE SELECTOR switch to the NORM position.					
2.	REC PAUSE	Apply a 315 Hz/0 dBv signal to the line input terminals, load the STD-630 test tape.	Rec Level control volume		TP. 1 (Lch) TP. 2 (Rch)	−11.2 dBv	
3.	STOP	Set the DOLBY NR switch to the ON position. (DOLBY B)					
4.	REC/ PLAY	Record the above signal onto the STD-630 test tape, and playback.	Deck II	VR301 (Lch) VR302 (Rch)	TP. 1 (Lch) TP. 2 (Rch)	Repeatedly record, playback and adjust so that the playback signal level becomes −11.2 dB.	
5.	STOP	Set the TAPE SELECTOR switch to the CrO_2 position.					
6.	REC/ PLAY	Record the above signal onto the STD-620 test tape, and playback.	Check		TP. 1 (Lch) TP. 2 (Rch)	−11.2 dBv ±1.5 dB	
7.	STOP	Set the TAPE SELECTOR switch to the METAL position.					
8.	REC/ PLAY	Record the above signal onto the STD-610 test tape, and playback.	Check		TP. 1 (Lch) TP. 2 (Rch)	−11.2 dBv ±1.5 dB	

5. Level Meter Check

No.	Mode	Input signal & test tape	Adjustment location	Measuring location	Adjustment value	Remarks
1.	REC PAUSE	Apply a 315 Hz/−10 dBv (316 mV) signal to the Line Input terminals.	Rec Level control volume	TP. 1 (Lch) TP. 2 (Rch)	Check that the level meters "0 dB" light up within −11.2 dBv ±2 dB of the signal output level.	

9. FOR CT-W630R/HEM, HB, HPW AND SD TYPES

NOTES :
- Parts without part number cannot be supplied.
- The ⚠ mark found on some component parts indicates the impotance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.
- Parts marked by "⊙" are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.

The CT-W630R/HEM, HB, HPW and SD types are the same as the CT-W630R/KUC type with the exception of the following sections.

Mark	Symbol & Description	Part No.					Remarks
		CT-W630R/KUC type	CT-W630R/HEM type	CT-W630R/HB type	CT-W630R/HPW type	CT-W630R/SD type	
	Main unit	Non supply	Non supply	Non supply	Non supply	Non supply	
	Display unit	Non supply	Non supply	Non supply	Non supply	Non supply	
	Transformer 1 unit	Non supply	Non supply	Non supply	Non supply	Non supply	
⚠	Strain relief	CM-22	CM-22B	CM-22B	CM-22B	CM-22B	
⚠	AC Power cord	RDG1010	PDG1003	PDG1004	PDG1006	PDG1013	
⚠	FU1801, FU1802 Fuse (1.5A/125V)	REK1001	.....	.....	.....	.....	
⚠	FU1801, FU1802 Fuse (T1.6A/250V)	.....	REK-102	REK-102	REK-102	REK-102	
⚠	Power transformer (120V)	RTT1116	.....	.....	.....	.....	
⚠	Power transformer (220/240V)	.....	RTT1123	RTT1124	RTT1124	.....	
⚠	Power transformer (110/120-127/220/240V)	.....	.....	.....	.....	RTT1125	
⚠	Voltage selector switch	.....	.....	.....	.....	PSB1002	
	Front panel assembly	RXX1259	RXX1261	RXX1261	RXX1259	RXX1259	
	Connection cord (Mini)	PDE-319	.....	.....	PDE-319	PDE-319	
	Packing case	RHG1164	RHG1173	RHG1167	RHG1167	RHG1167	
	Operating instructions (French, German, Italian, Dutch, Swedish, Spanish, Portuguese)	.....	RRD1068	.....	.....	.....	

MAIN UNIT

The main units of CT-W630R/HEM and HB types are the same as the main unit of CT-W630R/KUC, HPW and SD types with the exception of the following sections.

Mark	Symbol & Description	Part No.		Remarks
		CT-W630R/KUC, HPW and SD types	CT-W630R/HEM and HB types	
	D910-D912	1SS254	.....	
	C910	CKCYF103Z50	.....	
	JA902, JA903 Remote control jack	RKN1004	.....	

DISPLAY UNIT

The display units of CT-W630R/HEM and HB types are the same as the display unit of CT-W630R/KUC, HPW and SD types with the exception of the following sections.

Mark	Symbol & Description	Part No.		Remarks
		CT-W630R/KUC, HPW and SD types	CT-W630R/ HEM and HB types	
	D1507-D1509, D1511-D1517, D1520, D1521, D1523-D1527	SEL4914D-X	SEL4414G	

TRANSFORMER 1 UNIT

The transformer 1 units of CT-W630R/SD type are the same as that of CT-W630R/KUC, HPW, HEM and HB types for the service supply parts.

10. FOR CT-W530R/KUC, KUCXJ, HEM, HEMXJ, HPW, SD AND CT-W530R-S/HEWM TYPES

NOTES :
- Parts without part number cannot be supplied.
- The ⚠ mark found on some component parts indicates the impotance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.
- Parts marked by "⊙" are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.

The CT-W530R/KUC, KUCXJ, HEM, HEMXJ, HPW, SD and CT-W530R-S/HEWM types are the same as the CT-W630R/KUC type with the exception of the following sections.

Mark	Symbol & Description	Part No.							
		CT-W630R/ KUC type	CT-W530R/ KUC type	CT-W530R/ KUCXJ type	CT-W530R/ HEM type	CT-W530R/ HEMXJ type	CT-W530R/ HPW type	CT-W530R/ SD type	CT-W530R-S /HEWM type
	HX unit	Non supply	.....	.....	.....	.....	.....	.....	.....
	Main unit	Non supply	Non supply	Non supply	Non supply	Non supply	Non supply	Non supply	Non supply
	Display unit	Non supply	Non supply	Non supply	Non supply	Non supply	Non supply	Non supply	Non supply
	Volume unit	Non supply	Non supply	Non supply	Non supply	Non supply	Non supply	Non supply	Non supply
	Transformer 1 unit	Non supply	Non supply	Non supply	Non supply	Non supply	Non supply	Non supply	Non supply
	Transformer 2 unit	Non supply	Non supply	Non supply	Non supply	Non supply	Non supply	Non supply	Non supply
	Control SW (1) unit	Non supply	Non supply	Non supply	Non supply	Non supply	Non supply	Non supply	Non supply
	Control SW (2) unit	Non supply	Non supply	Non supply	Non supply	Non supply	Non supply	Non supply	Non supply
	Switch unit	Non supply	Non supply	Non supply	Non supply	Non supply	Non supply	Non supply	Non supply
	Regulator unit	Non supply	Non supply	Non supply	Non supply	Non supply	Non supply	Non supply	Non supply
⚠	Strain relief	CM-22	CM-22	CM-22	CM-22B	CM-22B	CM-22B	CM-22B	CM-22B
⚠	AC Power cord	RDG1010	RDG1010	RDG1010	PDG1003	PDG1003	RDG1006	PDG1013	PDG1003
⚠	FU1801, FU1802 Fuse (1.5A/125V)	REK1001	REK1001	REK1001	.....	.....	.....	.....	.....
⚠	FU1801, FU1802 Fuse (T1.6A/250V)	.....	.....	.....	REK-102	REK-102	REK-102	REK-102	REK-102
⚠	Power transformer	RTT1116	RTT1116	RTT1116	RTT1123	RTT1123	RTT1124	RTT1125	RTT1123
	Voltage selector switch	.....	.....	.....	.....	.....	.....	PSB1002	.....
	Stabilizer panel	RAH1483	.....	.....	.....	.....	.....	.....	.....
	Door lens	RAH1605	RAH1622	RAH1622	RAH1622	RAH1622	RAH1622	RAH1622	RAH1622
	Meter panel	RAH1606	RAH1615	RAH1615	RAH1615	RAH1615	RAH1615	RAH1615	RAH1615
	Meter lens	RAH1607	RAH1621	RAH1621	RAH1621	RAH1621	RAH1621	RAH1621	RAH1621
	Door pocket (L)	RAH1609	RAH1612	RAH1612	RAH1612	RAH1612	RAH1612	RAH1612	RAH1627
	Door pocket (R)	RAH1610	RAH1613	RAH1613	RAH1613	RAH1613	RAH1613	RAH1613	RAH1628
	Stabilizer (B)	REB1085	.....	.....	.....	.....	.....	.....	.....
	Insulator	VNK1095	.....	.....	VNK1095	VNK1095	.....	.....	VNK1095
	Leg assembly	.....	PXA1201	PXA1201	.....	.....	PXA1201	PXA1201	.....
	Stopper	VEC1061	.....	.....	VEC1061	VEC1061	.....	.....	VEC1061
	Knob (B)	RAC1414	RAC1414	RAC1414	RAC1414	RAC1414	RAC1414	RAC1414	RAC1492
	VR knob (B)	RAC1421	RAC1421	RAC1421	RAC1421	RAC1421	RAC1421	RAC1421	RAC1483
	Operation knob (B)	RAC1424	RAC1424	RAC1424	RAC1424	RAC1424	RAC1424	RAC1424	RAC1484
	Power knob	RAC1427	RAC1427	RAC1427	RAC1427	RAC1427	RAC1427	RAC1427	RAC1489

Mark	Symbol & Description	Part No.							
		CT-W630R/KUC type	CT-W530R/KUC type	CT-W530R/KUCXJ type	CT-W530R/HEM type	CT-W530R/HEMXJ type	CT-W530R/HPW type	CT-W530R/SD type	CT-W530R-S/HEWM type
	Slide knob	RAC1428	RAC1428	RAC1428	RAC1428	RAC1428	RAC1428	RAC1428	RAC1486
	VR knob (A)	RAC1430	RAC1430	RAC1430	RAC1430	RAC1430	RAC1430	RAC1430	RAC1485
	Operation knob (C)	RAC1475	RAC1475	RAC1475	RAC1475	RAC1475	RAC1475	RAC1475	RAC1493
	Operation knob (A)	RAC1479	RAC1479	RAC1479	RAC1479	RAC1479	RAC1479	RAC1479	RAC1488
	Eject knob	RAC1480	RAC1480	RAC1480	RAC1480	RAC1480	RAC1480	RAC1480	RAC1491
	REC mold (L)	RAH1608	RAH1608	RAH1608	RAH1608	RAH1608	RAH1608	RAH1608	RAH1645
	REC mold	RAH1611	RAH1611	RAH1611	RAH1611	RAH1611	RAH1611	RAH1611	RAH1623
	Bonnet	RXX1079	RXX1079	RXX1079	RXX1079	RXX1079	RXX1079	RXX1079	RXX1080
	Front panel assembly	RXX1259	RXX1260	RXX1260	RXX1260	RXX1260	RXX1260	RXX1260	RXX1264
	Packing case	RHG1164	RHG1166	RHG1200	RHG1174	RHG1201	RXX1169	RHG1169	RHG1170
	Operating instructions (English)	RRB1058	RRB1058	RRB1069	RRB1058	RRB1069	RXX1058	RRB1058	.....
	Operating instructions (French, German, Italian, Dutch, Swedish, Spanish, Portuguese)	.....	.....	.....	RRD1068	RRD1084	.....	.....	RRD1068
	Operating instructions (Spanish)	.....	.....	.....	.....	.....	.....	RRD1067	.....

NOTE : Volume unit, Transformer 1 unit, Transformer 2 unit, Control SW (1) unit, Control SW (2) unit, Switch unit, Regulator unit No different parts to be surpplied.

MAIN UNIT

The main units of CT-W530R/KUC, KUCXJ, HEM, HEMXJ, HPW, SD and CT-W530R-S/HEWM types are the same as the main unit of CT-W630R/KUC type with the exception of the following sections.

Mark	Symbol & Description	Part No.		Remarks
		CT-W630R/KUC type	CT-W530R/KUC, KUCXJ, HEM, HEMXJ, HPW, SD and CT-W530R-S/HEWM types	
	Q408	2SC1815	2SD1302	
	L402 Oscillator coil	RTD1048	RTD1049	
	C403	CQPA682J100	CQPA752J100	
	C405	CFTXA332J50	CFTXA472J50	
	R406, R407	RD 1/8 PM123J	RD 1/8 PM103J	
	R425	RD 1/8 PM5R6J	RD 1/8 PM4R7J	
	VR405, VR406 Semi-fixed (100k)	.....	VRT86VS104	

DISPLAY UNIT

The display units of CT-W530/KUC, KUCXJ, HEM, HEMXJ, HPW, SD and CT-W530R-S/HEWM types are the same as the display unit of CT-W630R/KUC type with the exception of the following sections.

Mark	Symbol & Description	Part No.			Remarks
		CT-W630R/KUC type	CT-W530R/KUC, KUCXJ, HPW and SD types	CT-W530R/HEM, HEMXJ and CT-W530R-S/HEWM types	
	D1507-D1509, D1511-D1517, D1520, D1521, D1523-D1527	SEL4914D-X	SEL4914D-X	SEL4414G	
	D1536, D1541	SEL4214R	.....	.....	
	R1516	RD 1/8 PM152J	.....	.....	

11. SPECIFICATIONS

System ..... 4 track, 2-channel stereo
Heads ..... "Hard Permalloy" recording/playback head × 1
"Hard Permalloy" playback head × 1
"Ferrite" erasing head × 1
Motor ..... DC servo capstan motor × 2
DC reel motor × 2
Wow and Flutter ..... No more than 0.055% (WRMS) (JIS)
No more than ±0.16% (DIN)
Fast Winding Time ..... Approximately 90 seconds (C-60 tape)

Frequency Response
−20 dB recording:
Metal tape ..... 25 to 18,000 Hz
Chrome tape ..... 25 to 17,000 Hz
Normal tape ..... 25 to 17,000 Hz
Signal-to-Noise Ratio
Dolby NR OFF ..... More than 57 dB

Noise Reduction Effect
Dolby B-type NR ON ..... More than 10 dB (at 5 kHz)
Dolby C-type NR ON ..... More than 19 dB (at 5 kHz)

Harmonic Distortion ..... No more than 1.0% (0 dB)
Input (Sensitivity)
LINE (INPUT) ..... 63 mV (Input impedance 56 kΩ)
MIC (CT-W630R only) ..... 0.4 mV
Output (Reference level)
LINE (OUTPUT) ..... 316 mV (Output impedance 4.5 kΩ)
Headphone ..... 0.25 mW (Load impedance 8 Ω)

Subfunctions

- DOLBY HX PRO recording function (only on deck II of model CT-W630 R)
- DOLBY NR B/C types
- Music search over ±15 selections
- High-speed and normal-speed copy (DECK I→DECK II)
- Relay playback/blank skip
- CD•DECK synchro recording capability
- Microphone jacks (CT-W630R only)
- Peak level meter with peak-hold function
- Automatic space recording mute
- Automatic tape selector
- System remote control available (Not on European model of CT-W630R)
- TIMER Recording
- TIMER Playback (Automatic relay on)

Miscellaneous

Power Requirements
U.S., Canadian models ..... AC 120V, 60 Hz
U.K., Australian models ..... AC 240 Volts~, 50/60 Hz
European model ..... AC 220 Volts~, 50/60 Hz
Multi-voltage models ..... AC 110V/120V−127V/220V/240V (switchable), 50/60 Hz

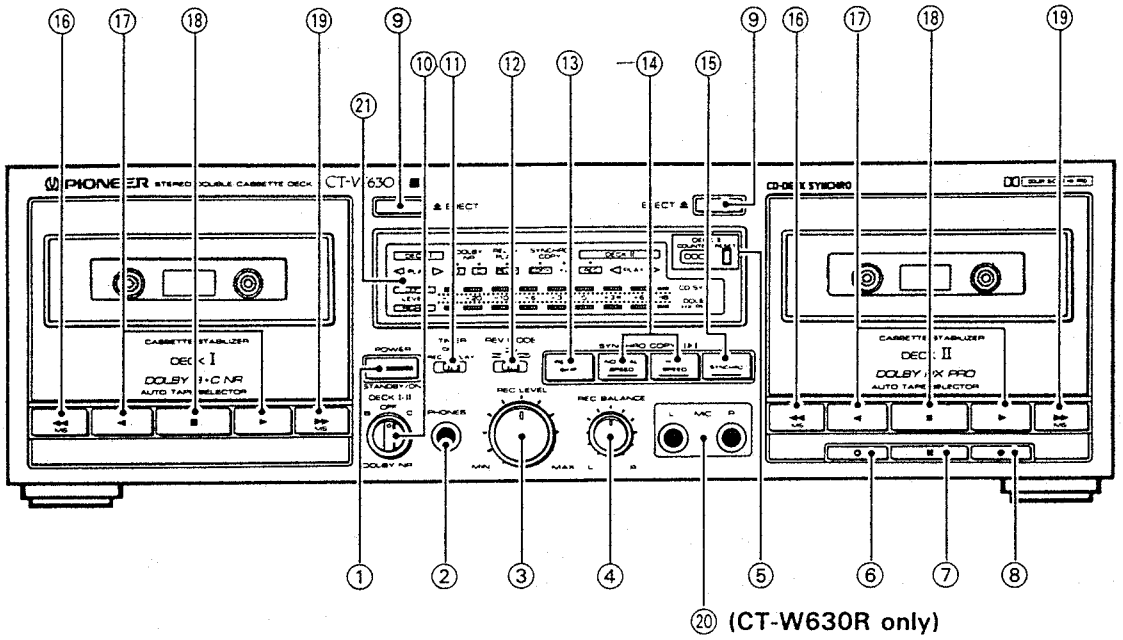
Power Consumption
CT-W630R 24W
CT-W530R 23W
Dimensions
CT-W630R ..... 420(W) × 128(H) × 268(D) mm
16-9/16(W) × 5-1/16(H) × 10-1/2(D) in
CT-W530R:
(except European model) ... 420(W) × 123(H) × 268(D) mm
16-9/16(W) × 4-13/16(H) × 10-1/2(D) in
CT-W530R:
(European model) ..... 420(W) × 128(H) × 268(D) mm
16-9/16(W) × 5-1/16(H) × 10-1/2(D) in
Weight (without package) ..... 4.6 kg (10 lb 2 oz)

Accessories

Operating instructions 1
Connection cord with pin plugs 2
Remote control cord
(Not on European model of CT-W630R) 1
CD•DECK synchro control cord 1

NOTE:
Specifications and design subject to possible modifications without notice, due to improvements.

12. PANEL FACILITIES



① POWER (STANDBY/ON) switch

The unit POWER switch is geared to selecting the transformer secondary and so even at the STANDBY position, the unit circuitry will work as long as the power cord is connected to a power outlet.

② PHONES jack

To insert headphones jack.

③ REC LEVEL control

④ REC BALANCE control

Balances the recording level between left (L) and right (R) channels.

⑤ DECK II tape COUNTER and RESET button

Resets the tape counter reading to "000".
(The tape COUNTER works for deck II only.)

⑥ Recording mute button (O)

Pressing this button during recording, creates a blank portion of approximately 4 seconds on the tape. The unit then enters the recording pause mode.

⑦ Pause button (▮▮)

Stops tape transport temporarily during recording or playback. Press the button again to resume operation. (This can also be done by pressing the Play (▶ or ◀) button.) This button does not work during fast-forward and rewind.

⑧ Recording button (●)

When the recording (●) button is pressed, the unit is set to recording standby mode. Press the pause (▮▮) button or playback (▶ or ◀) button when ready to record.
The unit will not enter the recording standby if a cassette with broken erasure prevention tabs is loaded.
Only deck II is equipped with a recording function.

⑨ EJECT button (⏏)

Press to open the cassette door after you have pressed the stop (■) button and the tape has stopped.

NOTE:
If the power is turned off while the tape is moving, the cassette door may remain locked. In this case, turn the power on before pressing the EJECT button (⏏).

⑩ DOLBY* NR switch

Set this switch to B or C for recording with the built-in Dolby Noise Reduction Systems and for playback of tapes which have been recorded using the Dolby Noise Reduction Systems. To play other tapes, set the DOLBY NR switch to OFF.
When the DOLBY NR switch is set to ON, the MPX filter function operates in synchronization with the Dolby noise reduction system. The operation of this filter may causes some high frequencies to be muted when the Dolby NR system is used for recording of FM broadcasts from some tuners.

*
- *Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation.*
- *"DOLBY" and the double-D symbol ⧈ are trademarks of Dolby Laboratories Licensing Corporation.*

(CT-W630R only)
- *Dolby noise reduction and HX Pro headroom extension manufactured under license from Dolby Laboratories Licensing Corporation. HX Pro originated by Bang & Olufsen.*
- *"DOLBY", the double-D symbol ⧈ and "HX PRO" are trademarks of Dolby Laboratories Licensing Corporation.*

NOTE:
When playing back Dolby NR-encoded tapes, always set this switch to the same position (B or C) used for recording.

⑪ TIMER mode selector

OFF:
Normally, be sure to leave the selector in this position except for repeat playback.

REC:
Set to this position for timer recording.

PLAY:
Set to this position for timer playback.

- Recording or playback may suddenly start when turning power on with this selector in the REC or PLAY position.
- When the selector is set to the PLAY position and the unit is turned on with POWER switch ① or an audio timer, the unit automatically enters the playback mode.

⑫ REV MODE (reverse mode) selector

⇄ :
Tape transport stops after one side of a tape is played or recorded.

⇉ :
When the forward playback (▶) button is pressed, each side of the tape is played or recorded once. When the reverse playback (◀) button is pressed to play or record on the tape, tape transport stops at the end of the reverse side (the side facing away from you when you loaded the tape).

↻ :
When the forward playback (▶) button is pressed, both sides of the tape are played continuously until 32 sides have been played. When the reverse playback (◀) button is pressed, both sides of the tape are played continuously until 31 sides have been played. In record mode, both sides of the tape are recorded once and then tape transport stops.

⑬ RELAY/SKIP button

Press this button to perform relay playback from deck I to deck II or from deck II to deck I.
When this button is pressed and a blank section of more than 15 seconds is encountered during playback, the unit fast forwards the tape to the beginning of the next selection and playback starts at that point.

⑭ SYNCHRO COPY (I▶II) buttons

NORMAL SPEED:
Starts tape copy at normal speed from deck I to deck II.

HIGH SPEED:
Starts tape copy at double speed (half time, from deck I to deck II).

⑮ CD SYNCHRO button

This button is used to carry out CD-Deck synchro recording from a CD player.

⑯ Fast reverse button (◀◀, MS)

To fast-reverse the tape in the direction of the arrows. When pressed during playback, the unit will skip one selection each time the button is pressed, then starts playback from the beginning of the next selection.

⑰ Playback button (▶ or ◀)

Play ▶:
Press this button to play back or record on the forward side of the tape (the side facing you). (Forward playback/recording)
Used to start recording in record-standby mode.

Play ◀:
Press this button to play back or record on the reverse side of the tape (the side facing away from you). (Reverse playback/recording)
Used to start recording in record-standby mode.

⑱ Stop button (■)

To stop all operations, including tape copy.

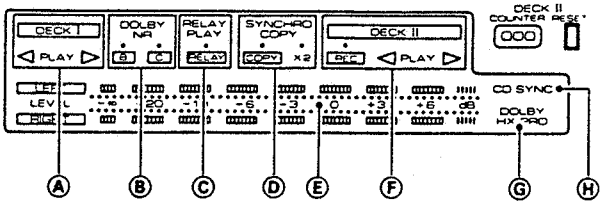
⑲ Fast forward button (▶▶, MS)

To fast-forward the tape in the direction of the arrows. When pressed during playback, the unit will skip one selection each time the button is pressed, then start playback from the beginning of the next selection.

⑳ MIC-L/R jacks (CT-W630R only)

To insert the plugs of the microphones L and R.

㉑ Operating Display



Ⓐ DECK I Tape Transport Mode Indicators

Ⓑ DOLBY NR Indicator

- When Dolby NR is off

- Dolby B-type NR on

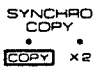
- Dolby C-type NR on

Ⓒ RELAY PLAY Indicator
Lights up when RELAY/SKIP button is pressed to start relay playback or to activate skip mechanism.

Ⓓ SYNCHRO COPY Indicator
Lights up during the tape copy operation.

- Normal-speed copy

- High-speed copy



Ⓔ LEVEL Meter
Holds peak indications for about 1.2 second. The ▯▯ beside the +3 dB mark indicates the Dolby NR systems standard level.

Ⓕ DECK II Tape Transport Mode Indicators

Ⓖ DOLBY HX PRO indicator (CT-W630R only)
This unit is provided with a built-in Dolby HX PRO Headroom Extension circuit. The DOLBY HX PRO indicator always appears on the display when the POWER switch is turned on.

Ⓗ CD SYNCHRO indicator
Lights when synchro recording from a CD player is being carried out.